

## General

### Title

Age-related macular degeneration (AMD): percentage of patients aged 50 years and older with a diagnosis of AMD or their caregiver(s) who were counseled within 12 months on the benefits and/or risks of the Age-Related Eye Disease Study (AREDS) formulation for preventing progression of AMD.

### Source(s)

American Academy of Ophthalmology (AAO). Eye care quality measure: age-related macular degeneration: counseling on antioxidant supplement. Version 9.1. San Francisco (CA): American Academy of Ophthalmology (AAO); 2015 Jan. 4 p.

## Measure Domain

### Primary Measure Domain

Clinical Quality Measures: Process

### Secondary Measure Domain

Does not apply to this measure

## Brief Abstract

### Description

This measure is used to assess the percentage of patients aged 50 years and older with a diagnosis of age-related macular degeneration (AMD) or their caregiver(s) who were counseled within 12 months on the benefits and/or risks of the Age-related Eye Disease Study (AREDS) formulation for preventing progression of AMD.

### Rationale

1. Scientific basis for counseling regarding use of Age-related Eye Disease Study (AREDS) formulation for patients with age-related macular degeneration (AMD)  
Antioxidant vitamins and mineral supplements help to reduce the rate of progression to advanced AMD for those patients with intermediate or advanced AMD in one eye (American Academy of Ophthalmology [AAO], 2014; AREDS Research Group, 2001). From the same AREDS study, there is no

evidence that the use of antioxidant vitamin and mineral supplements for patients with *mild* AMD alters the natural history of mild AMD.

At the same time, published meta-analyses have raised an issue as to the presence of an elevated mortality risk among patients taking elements similar to parts of the AREDS formulation (and elevated risk among smokers). As such, patients need to know of their individualized risk profile for taking the AREDS formula AND the potential benefits, so that they can make their OWN individual decision as to whether or not to take the AREDS formulation.

This indicator thus seeks to directly enhance the provider-patient relationship to apply the results of level 1 randomized controlled trials (RCTs) in a manner that accommodates the needs of each individual patient in a patient-centered manner, rather than a paternalistic approach of either recommending or withholding treatment.

## 2. Evidence of gap in care

Antioxidant vitamins and mineral supplements help to reduce the rate of progression to advanced AMD for those patients with intermediate or advanced AMD in one eye. From the same AREDS study, there is no evidence that the use of antioxidant vitamin and mineral supplements for patients with *mild* AMD alters the natural history of mild AMD.

### Clinical Recommendation Statements:

Patients with intermediate AMD or advanced AMD in one eye should be counseled on the use of antioxidant vitamin and mineral supplements as recommended in the AREDS reports (AAO, 2014).

Table 1: Antioxidant Vitamin and Mineral Supplements Used in the AREDS 2

Supplement	Daily Dose*
Vitamin C	500 mg
Vitamin E	400 IU
Lutein/zeaxanthin	10 mg/2 mg
Zinc oxide	80 mg or 25 mg
Cupric oxide	2 mg

(Data from AREDS2 Research Group, 2013)

\*These doses are not those listed on the commercially available vitamin/mineral supplements because of a change in labeling rules by the U.S. Food and Drug Administration that specifies that the doses must reflect the amounts available at the end of the shelf life.

## Evidence for Rationale

Age-Related Eye Disease Study 2 (AREDS2) Research Group, Chew EY, San Giovanni JP, Ferris FL, Wong WT, Agron E, Clemons TE, Sperduto R, Danis R, Chandra SR, Blodi BA, Domalpally A, Elman MJ, Antoszyk AN, Ruby AJ, Orth D, Bressler SB, Fish GE, Hubbard GB, Klein ML, Friberg TR, Rosenfeld PJ, Toth CA, Bernstein P. Lutein/zeaxanthin for the treatment of age-related cataract: AREDS2 randomized trial report no. 4. JAMA Ophthalmol. 2013 Jul;131(7):843-50. [PubMed](#)

Age-Related Eye Disease Study Research Group. A randomized, placebo-controlled, clinical trial of high-dose supplementation with vitamins C and E, beta carotene, and zinc for age-related macular degeneration and vision loss: AREDS report no. 8. Arch Ophthalmol. 2001 Oct;119(10):1417-36. [PubMed](#)

American Academy of Ophthalmology (AAO). Eye care quality measure: age-related macular degeneration: counseling on antioxidant supplement. Version 9.1. San Francisco (CA): American Academy of Ophthalmology (AAO); 2015 Jan. 4 p.

## Primary Health Components

Age-related macular degeneration (AMD); patient/caregiver counseling; antioxidant supplement; Age-related Eye Disease Study (AREDS) formulation

## Denominator Description

All patients aged 50 years and older with a diagnosis of age-related macular degeneration (AMD) (see the related "Denominator Inclusions/Exclusions" field)

## Numerator Description

Patients with age-related macular degeneration (AMD) or their caregiver(s) who were counseled within 12 months on the benefits and/or risks of the Age-related Eye Disease Study (AREDS) formulation for preventing progression of AMD (see the related "Numerator Inclusions/Exclusions" field)

## Evidence Supporting the Measure

### Type of Evidence Supporting the Criterion of Quality for the Measure

A clinical practice guideline or other peer-reviewed synthesis of the clinical research evidence

One or more research studies published in a National Library of Medicine (NLM) indexed, peer-reviewed journal

### Additional Information Supporting Need for the Measure

Unspecified

### Extent of Measure Testing

Unspecified

## State of Use of the Measure

### State of Use

Current routine use

### Current Use

not defined yet

# Application of the Measure in its Current Use

## Measurement Setting

Ambulatory/Office-based Care

## Professionals Involved in Delivery of Health Services

not defined yet

## Least Aggregated Level of Services Delivery Addressed

Individual Clinicians or Public Health Professionals

## Statement of Acceptable Minimum Sample Size

Unspecified

## Target Population Age

Age greater than or equal to 50 years

## Target Population Gender

Either male or female

# National Strategy for Quality Improvement in Health Care

## National Quality Strategy Aim

Better Care

## National Quality Strategy Priority

Person- and Family-centered Care

Prevention and Treatment of Leading Causes of Mortality

# Institute of Medicine (IOM) National Health Care Quality Report Categories

## IOM Care Need

Getting Better

## IOM Domain

Effectiveness

Patient-centeredness

## Data Collection for the Measure

### Case Finding Period

The reporting period

### Denominator Sampling Frame

Patients associated with provider

### Denominator (Index) Event or Characteristic

Clinical Condition

Encounter

Patient/Individual (Consumer) Characteristic

### Denominator Time Window

not defined yet

### Denominator Inclusions/Exclusions

#### Inclusions

All patients aged 50 years and older with a diagnosis of age-related macular degeneration (AMD)

Note: Refer to the original measure documentation for International Classification of Diseases, Ninth Revision (ICD-9), ICD-10, and Current Procedural Terminology (CPT) codes.

#### Exclusions

Unspecified

### Exclusions/Exceptions

not defined yet

### Numerator Inclusions/Exclusions

#### Inclusions

Patients with age-related macular degeneration (AMD) or their caregiver(s) who were counseled within 12 months on the benefits and/or risks of the Age-related Eye Disease Study (AREDS) formulation for preventing progression of AMD

Note:

If patient is already receiving AREDS formulation, the assumption is that counseling about AREDS has already been performed.

*Counseling:* Documentation in the medical record should include a discussion of risk or benefits of the AREDS formulation. Counseling can be discussed with all patients with AMD, even those who do not meet the criteria for the AREDS formulation, or other reasons why the patient would not meet criteria for AREDS formulation as outlined in the AREDS. The ophthalmologist or optometrist can explain why these supplements are not appropriate for their particular situation. Also, given the purported risks associated with antioxidant use, patients would be informed of the risks and benefits and make their choice based on valuation of vision loss vs. other risks. As such, the measure seeks to educate patients about overuse as well as appropriate use. Refer to the original measure documentation for Current Procedural Terminology (CPT) codes.

Exclusions

Unspecified

## Numerator Search Strategy

Fixed time period or point in time

## Data Source

Administrative clinical data

Registry data

## Type of Health State

Does not apply to this measure

## Instruments Used and/or Associated with the Measure

Unspecified

## Computation of the Measure

### Measure Specifies Disaggregation

Does not apply to this measure

## Scoring

Rate/Proportion

## Interpretation of Score

Desired value is a higher score

## Allowance for Patient or Population Factors

not defined yet

## Standard of Comparison

not defined yet

# Identifying Information

## Original Title

Age-related macular degeneration: counseling on antioxidant supplement.

## Measure Collection Name

Eye Care Quality Measures

## Submitter

American Academy of Ophthalmology - Medical Specialty Society

## Developer

American Academy of Ophthalmology - Medical Specialty Society

## Funding Source(s)

American Academy of Ophthalmology (AAO)

## Composition of the Group that Developed the Measure

- Paul P. Lee, MD, JD (*Co-Chair*)
- Jinnet B. Fowles, PhD (*Co-Chair*)
- Richard L. Abbott, MD
- Jeffrey S. Karlik, MD
- Lloyd P. Aiello, MD PhD
- Mathew W. MacCumber, MD, PhD
- Priscilla P. Arnold, MD
- Mildred M. G. Olivier, MD
- Richard Hellman, MD, FACP, FACE
- James L. Rosenzweig, MD, FACE
- Leon W. Herndon, MD
- Sam J. W. Romeo, MD, MBA
- Kenneth J. Hoffer, MD
- John T. Thompson, MD

## Financial Disclosures/Other Potential Conflicts of Interest

None

## Endorser

National Quality Forum - None

## NQF Number

not defined yet

## Date of Endorsement

2009 Oct 30

## Measure Initiative(s)

Physician Quality Reporting System

## Adaptation

This measure was not adapted from another source.

## Date of Most Current Version in NQMC

2015 Jan

## Measure Maintenance

Reviewed and updated if appropriate on an annual cycle

## Date of Next Anticipated Revision

2016

## Measure Status

This is the current release of the measure.

This measure updates a previous version: American Academy of Ophthalmology, Physician Consortium for Performance Improvement®, National Committee for Quality Assurance. Eye care physician performance measurement set. Chicago (IL): American Medical Association, National Committee for Quality Assurance; 2007 Oct. 36 p.

The measure developer reaffirmed the currency of this measure in December 2015.

## Measure Availability

Source not available electronically.

For more information, contact the American Academy of Ophthalmology (AAO) at 655 Beach Street, San Francisco, CA 94109; Phone: 415-561-8500; Fax: 415-561-8533; Web site: [www.aao.org](http://www.aao.org)

## NQMC Status

This NQMC summary was completed by ECRI Institute on February 13, 2008. The information was verified by the measure developer on April 22, 2008.



This NQMC summary was retrofitted into the new template on June 3, 2011.

This NQMC summary was edited by ECRI Institute on April 27, 2012.

This NQMC summary was updated by ECRI Institute on July 2, 2015. The information was verified by the measure developer on July 13, 2015.

The information was reaffirmed by the measure developer on December 16, 2015.

## Copyright Statement

This NQMC summary is based on the original measure, which is subject to the measure developer's copyright restrictions.

For more information, contact Debra Marchi at the American Academy of Ophthalmology (AAO), [dmarchi@aao.org](mailto:dmarchi@aao.org), regarding use and reproduction of these measures.

## Production

### Source(s)

American Academy of Ophthalmology (AAO). Eye care quality measure: age-related macular degeneration: counseling on antioxidant supplement. Version 9.1. San Francisco (CA): American Academy of Ophthalmology (AAO); 2015 Jan. 4 p.

## Disclaimer

### NQMC Disclaimer

The National Quality Measures Clearinghouse<sup>®</sup> (NQMC) does not develop, produce, approve, or endorse the measures represented on this site.

All measures summarized by NQMC and hosted on our site are produced under the auspices of medical specialty societies, relevant professional associations, public and private organizations, other government agencies, health care organizations or plans, individuals, and similar entities.

Measures represented on the NQMC Web site are submitted by measure developers, and are screened solely to determine that they meet the [NQMC Inclusion Criteria](#).

NQMC, AHRQ, and its contractor ECRI Institute make no warranties concerning the content or its reliability and/or validity of the quality measures and related materials represented on this site. Moreover, the views and opinions of developers or authors of measures represented on this site do not necessarily state or reflect those of NQMC, AHRQ, or its contractor, ECRI Institute, and inclusion or hosting of measures in NQMC may not be used for advertising or commercial endorsement purposes.

Readers with questions regarding measure content are directed to contact the measure developer.